Piffard (H. G.)

THE RHEUMIC DIATHESIS IN DERMATOLOGY.

BY

HENRY G. PIFFARD, M. D.,

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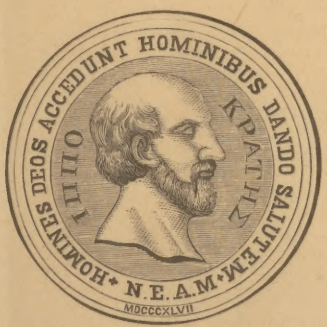
[*REPRINTED FROM THE TRANSACTIONS OF THE NEW YORK ACADEMY OF MEDICINE.*]



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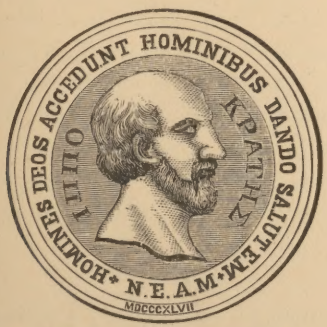

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Read October 21, 1875.

In a paper upon the classification of skin-diseases, which I had the honor of reading before the New York Dermatological Society, December 8, 1874, and which was published in the *Archives of Dermatology*, April, 1875, I placed Eczema, Psoriasis, and Pityriasis, among the general diathetic affections of the skin, and referred them to a diathesis to which I gave the name of *Rheuma*. This name was chosen, firstly, in consequence of its etymological signification, which implies the idea of exudation; secondly, because the blood-condition underlying this diathesis is probably similar to, if not identical with that concerned in the production of rheumatism and gout; and, thirdly, because the vulgar name *Salt-rheum*, so commonly used in this country, embraces the affections under consideration. As the term Syphilides has been adopted to signify the cutaneous manifestations of Syphilis, and Scrofulides those of Scrofula, in like manner I have given the name of Rheumides to the cutaneous manifestations of the Rheumic diathesis.

THE RHEUMIDES.

The term Rheumides implies the existence of a constitutional condition or diathesis to which these affections may be properly referable. This, at the outset, involves the consideration of three important points. The first of these is, as to the veritable existence of such a diathesis; the second, as to its

nature; and the third, as to whether the affections which we have assigned to it really come within its influence.

Argument in support of the existence of the Rheumic diathesis would hardly seem to be necessary were it not for the fact that it is denied *in toto* by the German school; a school whose invaluable contributions to dermatology entitle its views to our highest respect.

Looking to the past, we find that from early times in the history of medicine there has been a more or less prevalent belief in the existence of a general condition intimately connected with certain cutaneous affections, and which was recognized by the Greeks under the name of *psora*. This term, though frequently used with great vagueness, still represented a prominent idea, and corresponded to the "*scabies*" of the Romans (Celsus), the affection to which the name *eczema* is to-day applied.

Paulus Ægenita included psoriasis, as well as eczema, under the term psora.

Rhazes[1] describes two kinds of "scabies," the moist and the dry, and places "pruritus" in intimate connection with them. He attributes them all to "*humores adustos*," and originating "*ex sanguine et phlegmate falso*." The "scabies" here mentioned was equivalent to the ancient psora or modern eczema, and the "pruritus" probably corresponded to the lichen or papular eczema of the present day.

Leaving the distant past and coming to the dawn of modern systematic dermatology, we find Plenck[2] using the term "scabies" with very great looseness, making no less than eight varieties, of which but one, "scabies verminosa,"[3] corresponds to the affection now called by this name. The "scabies capitis" of Plenck, however, plainly includes eczema and "*est critica evacuatio humoris acrimoniosi, qui per glandulas capillitii excernitur*."

Later we find that, instead of the Roman "*scabies*" or ec-

[1] Latin translation, Basileæ, 1544.

[2] "Doctrina de Morbis Cutaneis," p. 41, Viennæ, 1776.

[3] "Est Scabies, in qua Vermiculi seu Acari Reperiuntur," p. 42.

zema being the principal feature of psora, the modern scabies or itch proper, by a curious confounding of terms, became its chief synonym. The itch, then, became the representative of psora, and, although by most regarded as a local affection, was still by many believed to be of constitutional origin. This view was especially elaborated by Hahnemann,[1] and carried to such extravagant lengths that reaction was the natural consequence. The idea of the constitutional nature of the itch was finally overthrown by Renucci's[2] demonstration that the acarus scabiei was unquestionably the cause of the affection, and from that time the idea of psora as a constitutional disease no longer existed in the minds of the majority. Modern scabies was the parasite which destroyed the diathetic claims of the ancient and more respectable psora, and hence the German notion of the local nature of all these affections.

Turning to England, we find the original idea prevalent in the early part of this century. Parr,[3] speaking of psoriasis, says, "It is more strictly the *dry itch*, which, in compliance with authors, we have mentioned under the last article" (Psora). "It is always apparently connected with some disorder in the constitution, often with gout and rheumatism. The seminium of the disease is apparently in the constitution."

Later this use of the term psora became corrupted, as in Germany; and we find Plumbe[4] confounding it with parasitic scabies. The constitutional nature, however, of the affections which it formerly included, was not given up, and is at the present day steadily gaining ground in England.

In France we find a cutaneous diathesis, distinct from syphilis and scrofula, accepted almost without dissent; this diathesis is commonly known as the "*dartrous*," and, synonymous with dartre, we find a revival of the ancient term *herpes*.

[1] "Organon of Homœopathic Medicine."

[2] Gras, "Recherches sur l'Acarus," Paris, 1834.

[3] "London Medical Dictionary," American edition, Philadelphia, 1819.

[4] "Practical Treatise on the Diseases of the Skin," fourth edition, London, 1837.

Hardy[1] believes that the term dartres may with propriety be applied to a very natural family of cutaneous affections, possessing many common characteristics, to which he alludes. In general terms he describes those subject to this diathesis as "in appearance enjoying all the attributes of good health, but who are yet in a peculiar state which cannot be considered perfectly sound. Their integument is habitually dry, and perspiration is diminished. The skin is often the seat of lively itching, even in the absence of eruption. The appetite is generally well developed, and it is well known that the dartrous eat a much greater quantity of food than other patients in analogous conditions. Another important peculiarity is the extreme sensibility of the skin, and the facility with which it is influenced by the lightest and most fugitive impressions. Sometimes general excitement, alcoholic excess, watching, use of coffee, of certain kinds of food; sometimes a local excitement, irritating frictions, or the application of a plaster, will give rise to an eruption, often ephemeral, and not dartrous in character, but which reveals a particular predisposition of the economy, and the existence of a latent vice which needs but a favorable occasion to manifest itself." To this diathesis Hardy ascribes eczema, lichen, psoriasis, and pityriasis.

Gigot-Suard,[2] under the title of *herpetism*, includes the affections just mentioned, and, in addition, a few others whose claims to this position appear to me to be somewhat doubtful.

Bazin[3] separates the dartre or herpetis of Hardy and the majority of French writers into two principal diseases, which he calls respectively dartre and arthritis, and between which he endeavors to draw distinctions, which are in many cases so delicate as to be hardly appreciable. He adds to the list of affections a number which appear to be accidental rather than essential to either of these diatheses.

In Italy, where cutaneous diseases have been studied with

[1] "Leçons théoriques et pratiques sur les Maladies de la Peau," Paris.

[2] "L'Herpetisme," Paris, 1870.

[3] "Leç. théoriq. et cliniq. sur les Aff. cut. de nat. arth. et dart.," Paris, 1868.

great zeal and scientific care, we find a general acceptance of the herpetic and arthritic diatheses.

Coming finally to America, we find a very wide-spread belief in the existence of a constitutional condition manifested by certain cutaneous eruptions, which have received the common name of *salt-rheum*. It is this diathesis, equivalent to the *dartre* of Hardy, the *herpetism* of Gigot-Suard, the *herpetis* and *arthritis* of Bazin and Italian writers, and the *psora* of the ancients, for which I propose the term *rheumic* as a designation.

The existence of this diathesis cannot be considered completely proved, as the very nature of the case renders an absolute demonstration impossible. In this, as in most other theoretical questions in medical science, we are obliged to form our opinions by the preponderance of probability on one side or the other, and the ability of the theory to explain the observed phenomena. In favor of this diathesis, we have the concurrent opinions of many intelligent and experienced observers, running through long periods of time, and by its acceptance a means of explaining many occurrences which would otherwise be inscrutable.

The second question which requires consideration in this connection is the nature of the rheumic diathesis. This is not simply a matter of theoretical interest, but is of the utmost practical importance from a therapeutic point of view, since a correct understanding of the nature and etiology of the affections dependent upon it enables us to conceive and apply rational methods of treatment.

The older views upon this subject are not of much value, and even when we come to the present century we find very little clearly formulated. The English writers, as a rule, favor the idea that it usually depends upon the condition which gives rise to gout. Schönlein held that it, or at least one of its manifestations (psoriasis), was due to uroplania (an excess of certain urinary ingredients in the blood). This view Hebra expressly condemns. Hardy attributes the diathesis to a peculiar vice of the constitution, of the nature of

which he is ignorant; Bazin, so far as his arthritides are concerned, to the same general blood-conditions which predispose to inflammation of the joints, both rheumatic and gouty; Gigot-Suard to uric, sometimes to oxalic acid. It will be seen, then, that all the decided opinions which have been expressed, concerning the nature of the diathesis, by those who believe in its existence, are one in idea if not in words, and imply the existence of some *materies peccans* as the efficient cause of its manifestations. The views above stated are in the main based upon clinical observation, with the exception of Gigot-Suard's, which derives additional weight from the results of experimental investigation (detection of uric acid in the scales and secretions in these affections, and the induction of similar cutaneous lesions, by the ingestion of uric and oxalic acids).[1] My own view, derived from observation, study, and experiment,[2] harmonizes with those mentioned. It may therefore be formally stated that the affections pertaining to this diathesis are, in all probability, due to the accumulation in the blood of an excess of certain excrementitious substances, and presumably those which are also efficient in the causation of gout and rheumatism, with perhaps the addition of a few others whose relations to morbid conditions have not as yet received much attention. Although it is far from being susceptible of demonstrative proof, it is more or less probable that the following are the noxious agents, namely: uric acid, lactic acid, oxalic acid, creatin, creatinin, and possibly others. The first, fourth, and fifth of these, are always derived from preëxisting albuminoid substances; the other two, sometimes from albuminoids, and sometimes from substances belonging to the amylaceous and saccharine groups, and all of them represent either steps or side-products of the processes which bring about the metamorphosis of food into tissue, and that again into sub-

[1] *Op. cit.*, and "l'Uricémie," Paris, 1875.

[2] In the blood of two out of three psoriasic patients I found oxalic acid by dialyzing the serum. A dilute solution of chloride of calcium was placed in the outer vessel, and the result was a crop of octohedra, dumbbells, and "spherites" of oxalate of lime.

stances ready for excretion. Our present knowledge of physiological chemistry will not enable us to trace the exact processes and successive steps which lead to the formation of these bodies, but I think it will warrant the assertion that the general process is one of oxidation. In other words, that albuminoids (e. g., roast-beef) entering the body as food, finally leave it as urea, mainly through the instrumentality of oxidation, and, if the oxidation of the received albuminoids is incomplete, we have a diminished proportion of urea, and an increased proportion of uric acid, etc. This condition may be conveniently denominated, after Bence Jones,[1] one of *suboxidation.*

This incomplete oxidation appears to be, to a certain but limited extent, a normal condition, and suboxidized products are found in very small proportion in healthy blood, and ready for removal by the kidneys; and it is only when they accumulate unduly that they prove harmful. Some of these bodies are themselves, or form in the blood, compounds which are less soluble than the urea, and are not so readily excreted, and hence tend to accumulate. This accumulation occurs whenever renal action is deficient, although the production of the uric acid, etc., may be in normal quantity. Or, on the other hand, over-accumulation may occur from over-production, even when the kidneys are removing from the system the usual proportion of these excreta.

In the former case the kidneys are at fault, and the difficulty arises from either organic or functional disease of these organs, usually the latter. It is probable, however, that the over-accumulation is more frequently due to over-production than to deficient excretion. When this is the case it arises from one of two causes: first, deficient oxidation of a normal supply of ingested albuminoids; or, second, oxidation being normally active, it is still incapable of fully meeting the requirements of an occasional or habitual over-supply of peptones, and hence a quantity of only partially-oxidized and

[1] "Lectures on some of the Applications of Chemistry and Mechanics to Pathology and Therapeutics," London, 1867.

very insoluble products is left in the circulating fluid to be with difficulty excreted.

This duty the kidneys will perform up to a certain point, and for a certain length of time; but at last failing to be completely removed they seek other channels of exit, chiefly the bowels, but in part also the skin.[1] The bowels, being accustomed to the office of depuration, do not complain when any slight extra demand is made upon them; but the skin, less accustomed to the performance of this function, exhibits its impatience by *pruritus* and its rebellion by *eruption*.

If the supply of ingesta is normally and properly adapted to the body's needs, but oxidation is imperfect, we are compelled to seek deeper for a cause. It is to be found either in a deficient supply of oxygen in the blood, or, if the supply be hygienically sufficient, in a defective utilization of it.

This leads us to inquire how and where the general processes of oxidation are carried on in the body. Without stating the many theories which have been advanced in explanation of this process, I will simply offer the one which seems to me to have the greater probabilities in its favor, to wit, the one recently urged with so much force by Murchison.[2] This writer believes that the liver is the principal seat of the oxidizing processes, and that deficient functional activity of this organ is the *fons et origo* of most of the troubles arising from suboxidation. I have the more readily accepted the views of Murchison, as deductions from a different set of data had previously led me to suspect the liver of being intimately connected with the production of the rheumic diathesis. It is also probable that a certain amount of oxidation occurs in the tissues, and even in the blood itself.

Let us now return with the argument, and in the light of his theory trace a pound of beef from the mouth to the urinal.

[1] Gigot-Suard's "Experiments" (q. v.) seem to prove this. G. Bird ("Urinary Deposits," etc.) has observed eczematous eruptions "frosted" with crystals of urate of soda, and I have myself obtained uric acid from the sweat of rheumic patients. Lactic acid has been found in it by others.

[2] "On Functional Derangements of the Liver," London, 1874.

Entering the stomach it is acted upon by the gastric juice and changed into albuminose or peptones.[1] These are received by endosmosis into the portal capillaries, and are conveyed to the liver; here they wholly, or in part, undergo oxidation, and are conveyed thence by the hepatic vein to the vena cava, to the right heart, through the lungs, to the left heart, and from it to the general circulation, through the medium of which they are distributed to the tissues. Here, by further oxidation, perhaps, they become tissue, remain as such for a time, until by still further oxidation they are released from their morphological condition, and reënter the circulation, perhaps as urea, perhaps only as substances capable by still further oxidation of becoming urea, and ready for removal by the kidneys. If, now, these normal processes be anywhere obstructed, we have in the circulation the very insoluble products of deficient oxidation, which, unable to entirely escape by the kidneys, seek a vicarious exit, in part by the skin, and in so doing, give rise to the cutaneous troubles we are considering.

What causes the tendency to deficient oxidation by the liver and other organs concerned? This is a question which we cannot definitely answer. Excluding cases characterized by a deficiency of red corpuscles, anæmia, chlorosis, etc., in which the proximate cause is very evident, we come to others and by far the majority, concerning which we only know that sometimes the difficulty appears to be hereditary, and at other times acquired, and that in either case it is always difficult, and sometimes impossible to remedy, and that our efforts must be confined to controlling its results rather than to eradicating their cause.

There is, however, another important change in the constitution of the blood, and one which results directly from this over-accumulation of sub-oxidized product. Uric, lactic, and oxalic acids, combining with the free alkalies or alkaline carbonate existing in the serum, reduce its alkalinity—that is, render it sub-alkaline. Now, it is well known that processes

[1] I am considering simply the nitrogenous principles of the beef, not the fats, salts, etc.

of oxidation, whether within or without the body, are more readily accomplished in the presence than in the absence of an alkali; in other words, alkalies assist oxidation, and their diminished proportion in the blood-serum and the tissues greatly retards this normal process.[1] The importance of this fact, from a therapeutical point of view, will be immediately perceived.

This diathesis of sub-oxidation does not manifest its effects upon the skin alone, but also upon the mucous membranes and the joints; and, in all probability, underlies certain chronic organic lesions of the viscera. These, however, do not immediately concern us, and hence will not be specially referred to.

The third question which we are called upon to determine in connection with this diathesis is, the propriety of considering eczema, psoriasis, and pityriasis, among its dependents.

If these affections do depend upon this or any other diathesis or common constitutional condition, we should expect them to exhibit certain general characteristics indicating a mutual relationship. This they do, and the principal features which they possess in common, and which serve to point to this relationship, are the following:

They are not contagious.

They are frequently general; not, however, by simultaneous invasion of the surface, but by spreading from different foci.

They are frequently symmetrical.

They are usually chronic.

Their natural duration is indefinite.

They are obstinate, and do not readily yield to treatment.

They are frequently observed in different members of the same family.

They are frequently observed in different forms in different generations of a family.

Two or more forms may be present at the same time, or may appear successively.

[1] Bence Jones lays special stress upon this. A familiar example is the oxidation of sugar in Fehling's reaction, which will not occur except in the presence of an excess of alkali.

They do not always preserve their individuality, but sometimes merge one into the other.

Relapses are frequent.

They sometimes alternate with affections of other organs, especially of the pulmonary and gastric mucous membranes, and of the joints.

They itch.

The lesions are always superficial.

They never leave cicatrices.

They are more or less amenable to certain definite methods of treatment, which have little if any effect upon other cutaneous affections.

These many common features, together with the results of rational treatment based upon indications deduced from the supposed nature of the affections, tend, with increasing experience, to confirm rather than weaken the views which I have now for some years held concerning this diathesis, and the propriety of classing these affections among its manifestations.

Treatment.—Having now considered the nature of the rheumic diathesis, it remains to be seen whether we have any means at our command by which it may be counteracted, or its effects in any way modified. The measures which may be adopted for this purpose come under two heads, namely, rational and empirical. The rational treatment will be best understood by taking a retrospective glance at the morbid conditions present and their cause.

In the first place we have the blood surcharged with insufficiently oxidized excrementitious principles, less soluble than urea, the substance into which they would be changed if normal action were taking place.

2. The blood is sub-alkaline.

3. The accumulation in the blood of these excreta is due either to deficient action of the kidneys; or—

4. The kidneys acting normally, these substances are produced in excess.

5. This excess is due either to over-supply of albuminoid food, the surplus not being thoroughly oxidized; or—

6. The nitrogenous ingesta, not being excessive, there is failure on the part of the oxidizing processes to fully perform this function.

7. There are strong reasons for believing that the liver is the organ more particularly at fault in this connection.

The two principal indications, then, are to depurate the blood and to promote oxidation, and these we may expect to fulfill, with more or less success, by means at our command.

Depuration of the blood is to be effected by calling into more vigorous action either the kidneys, bowels, or skin. If the trouble is due to defective renal activity, a point which may be determined by careful estimation of the amount of nitrogen daily discharged in the urea, uric acid, etc., we must treat these organs with some leniency, and be careful not to urge them too much, since by undue stimulation we may increase the difficulties under which they are laboring, and defeat the very object we have in view, to say nothing of the risk of doing more serious damage. We will be obliged, therefore, to depend upon the skin and bowels for the fulfillment of the first indication. The functional activity of the skin is increased by exercise, bathing, and warmth; and is most rapidly and vigorously influenced by the hot-air or Turkish bath. This latter agent, in the absence of extensive eruption, is almost always of service, and, when properly managed, is not liable to be followed by injurious after-effects; it may, therefore, be applied frequently, even daily, with the happiest results.

If the bowels are to be stimulated, we may employ various cathartics, the most useful in this connection, perhaps, being the ordinary senna and salts, given in sufficient doses to produce one or two loose evacuations daily. Hardy praises very highly an infusion of wild pansy (viola tricolor), combined with senna, in about the following proportions:

℞. Violæ tricoloris,	℥ j.
Sennæ,	℥ ss.
Aq. bullientis,	O ij.
M.	

One-quarter to one-half of this quantity to be taken daily, and the amount to be diminished gradually as the necessity for its employment lessens. Hardy states that he has given this purgative for two or three months at a time without ill effect.

In place of these remedies we may employ some of the natural mineral waters, as those of *Seidlitz*, containing sulphate of magnesia largely, without chlorides; of *Pullna*, characterized by its richness in sulphates of magnesia and soda, together with chlorides; or of *Friedrichshall*, containing both soda and magnesia, but less abundantly than Pullna. The native waters which seem to approach most nearly in chemical composition to those above noted are the *Estill* and *Crab Orchard* Springs of Kentucky.[1]

This active purgation, however, I believe is rarely required, the condition necessitating it (defective renal action) being the exception, and by no means the rule, as numerous quantitative analyses have indicated a normal excretion of nitrogen.[2]

If the kidneys are perfectly healthy, we may leave the bowels entirely alone, and call upon the former to perform most of the depurating work. This is effected by diuretics, and the ones specially serviceable in this connection are vinum colchici, infus. digitalis, vinum caffeæ viridis,[3] balsam of copaiba, propylamine, carbonate of lithia, and vichy.

[1] We know so little concerning the native mineral waters, that it is difficult to speak confidently as to their effects. Many of them, especially those of this State (New York), contain a large proportion of lime (sulphate and carbonate), which does not appear to me to be a desirable ingredient, except, perhaps, in certain special conditions not connected with skin-diseases.

[2] This statement is chiefly based upon urea determinations. The quantitative analysis of uric acid being tedious, and often unsatisfactory, has not been so frequently employed.

[3] I first learned the value of this preparation in Gigot-Suard (*op. cit.*), and have it prepared as follows: One pound of ground unburned coffee is added to a quart of good sherry, and left to digest for two weeks. The mixture is then filtered through flannel, and the residue subjected to pressure, and enough fresh wine is added to make a quart. Dose, ʒj or ʒij *per diem*. This wine is prepared for me by Mr. B. W. Dyer, No. 460 Fourth Avenue.

These remedies, one and all, appear to exert a marked influence upon the urine, notably increasing the amount of solids daily excreted in this fluid. They are, moreover, among our chief reliances in gouty and rheumatic conditions generally. The carbonate of lithia and vichy, besides being diuretic, tend in addition to restore the normal degree of alkalinity to the blood, and by their presence as alkalies to assist oxidation. These different diuretics may be used singly or combined, and for a considerable period. Lithia and vichy, however, and alkalies generally, if too long employed, tend to impoverish the blood by diminishing the number of red corpuscles. To obviate this, the use of the benzoate of lithia, combined with iron, has been suggested. A better plan, however, if we anticipate a prolonged use of alkalies and other diuretics, is to intermit their employment for one or two weeks out of each month, giving iron if necessary in the intervals.[1]

Having put in force the measures necessary for the depuration of the blood, and the reëstablishment of its normal alkalinity, attention must be directed to the question of oxidation.

If the conditions present be simply due to incomplete oxidation of an excessive amount of albuminoid ingesta, the course is very clear. It is only necessary to diminish the proportion of this kind of diet. In other words, cut off the meat to a greater or less extent, and substitute for it a larger quantity of bread, vegetables, and fats. Some of these patients are exceedingly fond of meat, and eat it in large quantities, and are sometimes inclined to rebel against restriction of their diet. The quantity of meat eaten by many persons is greatly in excess of the real bodily needs. And this excess being of no service is pretty apt to do harm, and soon brings the patient in contact with his physician. In these cases, then, our principal effort should be to induce the patient to modify his diet in the way suggested, and, even if he is a little rebellious at first, it is surprising how soon he becomes reconciled to the

[1] It must be remembered that we are dealing with chronic conditions and treatment to be effectual must be continued for a long time.

changed conditions, and frequently loath to return to his former habits.

If, on the other hand, but a moderate quantity of nitrogenous food is ingested, and even this is incompletely oxidized, it will be necessary to institute measures specially designed to increase oxidation. The red corpuscles being the vehicles by which the inhaled oxygen is distributed to the different parts of the body, it is, of course, of the first importance that they should be present in normal quantities. Any notable deficiency in this respect is easily ascertained, and may usually be remedied to a great extent by the use of preparations of iron. This being accomplished, we must endeavor to insure a full supply of oxygen by exercise in the open air, good bedroom ventilation, and the like. In addition we may attempt to furnish oxygen directly to the blood by inhalations of the pure gas, or better, perhaps, by inhalations of oxygen, a small portion of which has been rendered more active by ozonation. Further, we may employ certain medicines which contain oxygen largely, and are believed to be capable of giving it up to the blood, as, for instance, the chlorate of potassa. The alkalies already mentioned, which by their presence assist oxidation, are appropriate adjuvants.

Finally, if the liver be torpid—that is, functionally inactive—we may have recourse to the occasional, and, in some cases, frequent use of cartain drugs which have the reputation of being hepatic stimulants, as mercury, podophyllin, etc.

The above outline of treatment is certainly the one which the conditions supposed to exist would naturally suggest. I should hesitate, however, to offer it, even with personal experience in its favor, were it not that there is abundant corroborative testimony from other sources in favor of each and every one of the remedies mentioned. The value of cathartics, of diuretics, of alkalies, of chalybeates, and of hepatics, as isolated remedies in the affections embraced in this diathesis, is recognized by almost every modern writer, and their employment counseled under various circumstances. Heretofore their use has mainly been empirical, and not founded

upon preconceived views as to the special indications which they fulfilled.

Their acknowledged clinical value, however, is strong presumptive evidence of the at least approximate correctness of the theoretical views that have been expressed, and should induce us to seek further for remedies still better adapted to fulfill the indicated requirements.

It is not of course supposed that in any given case all of the drugs mentioned will be required, but the happiest results are to be expected from their judicious selection, combination, and alternation.

The treatment which I have here advocated for the affections belonging to this group is intended to replace the method which, until recently, has received almost universal adhesion. I allude to the treatment by arsenic.

Arsenic has been and is still by many, perhaps by most, regarded as the sheet-anchor in the management of these affections. Its reputation is based upon the fact that it has the most undoubted control over many of the manifestations of this diathesis; a control evidenced by the prompt removal, in many cases, of the visible lesions and other appreciable symptoms. But does it, in addition to this, exert any influence upon the constitutional conditions which underlie them? Does it in the slightest degree tend to prevent their relapse? I have never been able to perceive that it did. In my earlier experiences I employed arsenic largely, and obtained the effects usually ascribed to it; gradually I used it less frequently, and at present prescribe it but seldom, and have no hesitation in saying that the arsenical treatment of these affections, though often more prompt, is on the whole less satisfactory than the method which I have here detailed.

The foregoing refers simply to the internal treatment of the rheumic affections, but it must not be supposed that dependence is to be placed upon it alone. On the contrary, local treatment is of service in almost every case, but can only be considered in connection with the special affections themselves.